

Preliminary Amendment
Application Number: 10/572,377
Attorney Docket No. 062284

AMENDMENTS TO THE SPECIFICATION

Please amend the specification as follows:

Amend four paragraphs beginning on page 3, line 9 as follows:

[0006] To solve the above-mentioned problems, an optical fiber wiring method of the invention according to ~~Claim 1~~ a first aspect is featured in comprising the steps of feeding an optical fiber to pass through an adhesive ejecting nozzle having an inner diameter larger than an outer diameter of the optical fiber, to thereby obtain the optical fiber coated with the adhesive on a fiber surface, and forming optical wiring on a substrate by using the adhesive-coated optical fiber. Also, the invention according to ~~Claim 2~~ a second aspect is featured in that the optical wiring is formed on the substrate by moving the substrate and the nozzle relative to each other. The invention according to ~~Claim 3~~ a third aspect is featured in moving the nozzle with the substrate held fixed, and the invention according to ~~Claim 4~~ a fourth aspect is featured in moving the substrate with the nozzle held fixed.

[0007] Thus, in the inventions according to ~~Claims 1 to 4~~ first to fourth aspects, the nozzle constituting a liquid material ejecting unit and/or a movable stage can be moved in accordance with an instruction from a controller. When only the nozzle is moved, the optical wiring can be formed in the X-axis direction, and when only the movable stage is moved, the optical wiring can

be formed in the Y-axis direction. Also, when the nozzle and the movable stage are moved relative to each other, the optical wiring can be formed in an inclined line or a circular-arc line.

[0008] The invention according to ~~Claim 5~~ a fifth aspect is featured, in the invention according to any one of ~~Claims 1 to 4~~ the first to fourth aspects, in that the optical fiber is a polymer optical fiber. Further, the invention according to ~~Claim 6~~ a sixth aspect is featured, in the invention according to any one of ~~Claims 1 to 5~~ the first to fifth aspects, in that the adhesive is of the type being hardened with irradiation of an ultraviolet ray, and the optical wiring is formed on the substrate by irradiating an ultraviolet ray after the optical fiber coated with the adhesive on the fiber surface has been wired on the substrate.

[0009] In addition, to solve the above-mentioned problems, an optical fiber wiring apparatus according to ~~Claim 7~~ a seventh aspect is featured in comprising a liquid material ejecting unit provided with a liquid material ejecting nozzle having an inner diameter larger than an outer diameter of an optical fiber and allowing the optical fiber and the adhesive to be simultaneously fed through the nozzle, and a stage for supporting a substrate on which the optical fiber is to be wired, wherein the liquid material ejecting unit and the stage are movable relative to each other. Also, the invention according to ~~Claim 8~~ an eighth aspect is featured in that the stage for supporting the substrate is fixed and the nozzle is movable to form optical wiring on the substrate with the relative movement. The invention according to ~~Claim 9~~ a ninth aspect is featured in that the nozzle is fixed

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and the stage for supporting the substrate is movable to form optical wiring on the substrate with the relative movement. Further, the invention according to ~~Claim 10~~ a tenth aspect is featured in that the adhesive is of the type being hardened with irradiation of an ultraviolet ray, and the apparatus further comprises an ultraviolet ray irradiation unit for irradiating an ultraviolet ray to harden the adhesive after the optical fiber coated with the adhesive on the fiber surface has been wired on the substrate.